



SEQUENCE LISTING

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Covic, Lidiya

<120> G Protein Coupled Receptor (GPCR) Agonists and
Antagonists and Methods of Activating and Inibiting
GPCR Using the Same

<130> 18475-034

<140> 09/841,091

<141> 2001-04-23

<150> 60/198,993

<151> 2000-04-21

<160> 37

<170> PatentIn Ver. 2.1

<210> 1

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Pepducin
Peptide Sequence

<400> 1

Arg Cys Leu Ser Ser Ser Ala Val Ala Asn Arg Ser Lys Lys Ser Arg
1 5 10 15

Ala Leu Phe

<210> 2

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Pepducin
Peptide Sequence

<400> 2

Ala Val Ala Asn Arg Ser Lys Lys Ser Arg Ala Leu Phe
1 5 10

<210> 3

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Pepducin
Peptide Sequence

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<400> 3
Lys Lys Ser Arg Ala Leu Phe
1 5

<210> 4
<211> 12
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<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Pepducin
Peptide Sequence

<400> 4
Arg Cys Leu Ser Ser Ser Ala Val Ala Asn Arg Ser
1 5 10

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<210> 5
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Pepducin
Peptide Sequence

<400> 5
Arg Cys Leu Ser Ser Ser Ala Val Ala Asn Ser Ser Ala Leu Phe
1 5 10 15

<210> 6
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Pepducin
Peptide Sequence

<400> 6
Arg Cys Glu Ser Ser Ser Ala Glu Ala Asn Arg Ser Lys Lys Glu Arg
1 5 10 15

Glu Leu Phe

<210> 7
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Pepducin
Peptide Sequence

<400> 7
Arg Met Leu Arg Ser Ser Ala Met Asp Glu Asn Ser Glu Lys Lys Arg

1 5 10 15

Lys Arg Ala Ile Lys
20

<210> 8
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Pepducin
Peptide Sequence

<400> 8
Arg Met Leu Arg Ser Ser Ala Met Asp Glu Asn Ser Glu Lys Lys Arg
1 5 10 15

Lys Arg Ala Ile Phe
20

Pub B12

<210> 9
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Pepducin
Peptide Sequence

<400> 9
His Thr Leu Ala Ala Ser Gly Arg Arg Tyr Gly His Ala Leu Arg
1 5 10 15

<210> 10
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Pepducin
Peptide Sequence

<400> 10
His Thr Leu Ala Ala Ser Gly Arg Arg Tyr Gly His Ala Leu Phe
1 5 10 15

<210> 11
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: "Pepducin
Peptide Sequence

<400> 11

Lys Val Lys Ser Ser Gly Ile Arg Val Gly Ser Ser Lys Arg Lys Lys
1 5 10 15

Ser Glu Lys Lys Val Thr Lys
20

<210> 12
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Pepducin
Peptide Sequence

<400> 12
Lys Val Arg Ser Ser Gly Ile Arg Val Gly Ser Ser Lys Arg Lys Lys
1 5 10 15

Ser Glu Lys Lys Val Thr Phe
20

<210> 13
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Pepducin
Peptide Sequence

<400> 13
Arg Ile Arg Ser Asn Ser Ser Ala Ala Asn Leu Met Ala Lys Lys Arg
1 5 10 15

Val Ile Arg

<210> 14
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Pepducin
Peptide Sequence

<400> 14
Arg Ile Arg Ser Asn Ser Ser Ala Ala Asn Leu Met Ala Lys Lys Arg
1 5 10 15

Val Ile Glu Phe
20

<210> 15
<211> 18
<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Pepducin
Peptide Sequence

<400> 15

Ser Gly Ser Arg Pro Thr Gln Ala Lys Leu Leu Ala Lys Lys Arg Val
1 5 10 15

Val Arg

<210> 16

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Pepducin
Peptide Sequence

<400> 16

Ser Gly Ser Arg Pro Thr Gln Ala Lys Leu Leu Ala Lys Lys Arg Val
1 5 10 15

Val Phe

<210> 17

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Extracellular
Agonist Peptide Sequence

<400> 17

Ser Leu Ile Gly Lys Val
1 5

<210> 18

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Extracellular
Agonist Peptide Sequence

<400> 18

Ala Gly Cys Lys Asn Phe Phe Trp Lys Thr Phe Thr Ser Cys
1 5 10

<210> 19

<211> 97

<212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Pepducin
 Peptide Sequence

 <220>
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 <222> (1)..(97)
 <223> Wherein Xaa is a space/gap induced by peptide
 alignment analysis

 <400> 19
 Arg Cys Leu Ser Ser Ser Ala Val Ala Asn Arg Ser Xaa Xaa Xaa Xaa
 1 5 10 15
 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 20 25 30
 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 35 40 45
 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 50 55 60
 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 65 70 75 80
 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Lys Lys Ser Arg Ala Leu
 85 90 95

 Phe

<210> 20
 <211> 97
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Pepducin
 Peptide Sequence

 <220>
 <221> VARIANT
 <222> (1)..(97)
 <223> Wherein Xaa is a space/gap induced by peptide
 alignment analysis

 <400> 20
 Arg Met Leu Arg Ser Ser Ala Met Asp Glu Asn Ser Xaa Xaa Xaa Xaa
 1 5 10 15
 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 20 25 30
 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 35 40 45

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
50 55 60

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
65 70 75 80

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Glu Lys Lys Arg Lys Arg Ala Ile
85 90 95

Lys

<210> 21

<211> 95

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Pepducin
Peptide Sequence

<220>

<221> VARIANT

<222> (1)..(95)

<223> Wherein Xaa is a space/gap induced by peptide
alignment analysis

<400> 21

Arg Glu Leu Tyr Leu Gly Leu Arg Phe Asp Ser Asp Ser Asp Ser Gln
1 5 10 15

Ser Arg Val Arg Asn Gln Gly Gly Leu Pro Gly Ala Val His Gln Asn
20 25 30

Gly Arg Cys Arg Pro Glu Thr Gly Ala Val Gly Xaa Xaa Glu Asp Ser
35 40 45

Asp Gly Cys Tyr Val Gln Leu Pro Arg Ser Arg Pro Ala Leu Glu Leu
50 55 60

Thr Ala Leu Thr Ala Pro Gly Pro Gly Ser Gly Ser Arg Xaa Xaa Xaa
65 70 75 80

Xaa Pro Thr Gln Ala Lys Leu Leu Ala Lys Lys Arg Val Val Arg
85 90 95

<210> 22

<211> 95

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Pepducin
Peptide Sequence

<220>

<221> VARIANT

<222> (1)..(95)

<223> Wherein Xaa is a space/gap induced by peptide

alignment analysis

<400> 22

Leu	Glu	Leu	Tyr	Gln	Gly	Ile	Lys	Phe	Glu	Ala	Ser	Gln	Lys	Lys	Ser
1				5					10					15	
Ala	Lys	Glu	Arg	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
			20				25						30		
Xaa	Xaa	Xaa	Xaa	Lys	Pro	Ser	Thr	Thr	Ser	Ser	Gly	Lys	Tyr	Glu	Asp
			35				40					45			
Ser	Asp	Gly	Cys	Tyr	Leu	Lys	Thr	Arg	Pro	Pro	Arg	Lys	Leu	Glu	Leu
	50					55					60				
Arg	Gln	Leu	Ser	Thr	Gly	Ser	Ser	Ser	Arg	Ala	Asn	Arg	Ile	Arg	Ser
	65				70					75					80
Asn	Ser	Ser	Ala	Ala	Asn	Leu	Met	Ala	Lys	Lys	Arg	Val	Ile	Arg	
				85					90					95	

<210> 23

<211> 97

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Pepducin
Peptide Sequence

<220>

<221> VARIANT

<222> (1)..(97)

<223> Wherein Xaa is a space/gap induced by peptide
alignment analysis

<400> 23

Ile	Thr	Leu	Trp	Ala	Ser	Glu	Ile	Pro	Gly	Asp	Ser	Xaa	Xaa	Xaa	Xaa
1				5					10					15	
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
			20				25						30		
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
			35				40					45			
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
	50					55					60				
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
	65				70				75						80
Xaa	Ser	Asp	Arg	Tyr	His	Glu	Gln	Val	Ser	Ala	Lys	Arg	Lys	Val	Val
				85					90					95	

Lys

<210> 24

<211> 97
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Pepducin
Peptide Sequence

<220>
<221> VARIANT
<222> (1)..(97)
<223> Wherein Xaa is a space/gap induced by peptide
alignment analysis

<400> 24
Lys Val Lys Ser Ser Gly Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
1 5 10 15
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
20 25 30
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
35 40 45
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
50 55 60
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
65 70 75 80
Ile Arg Val Gly Ser Ser Lys Arg Lys Lys Ser Glu Lys Lys Val Thr
85 90 95

Arg

<210> 25
<211> 97
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Pepducin
Peptide Sequence

<220>
<221> VARIANT
<222> (1)..(97)
<223> Wherein Xaa is a space/gap induced by peptide
alignment analysis

<400> 25
His Thr Leu Ala Ala Ser Gly Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
1 5 10 15
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
20 25 30
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
35 40 45

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
50 55 60

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
65 70 75 80

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Arg Arg Tyr Gly His Ala Leu
85 90 95

Arg

<210> 26
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Pepducin
Peptide Sequence

<220>
<221> VARIANT
<222> (1)..(21)
<223> Wherein Xaa is a space/gap induced by peptide
alignment analysis

<400> 26
Arg Cys Leu Ser Ser Ser Ala Val Ala Asn Arg Ser Xaa Xaa Lys Lys
1 5 10 15

Ser Arg Ala Leu Phe
20

<210> 27
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Pepducin
Peptide Sequence

<220>
<221> VARIANT
<222> (1)..(21)
<223> Wherein Xaa is a space/gap induced by peptide
alignment analysis

<400> 27
His Thr Leu Ala Ala Ser Gly Xaa Xaa Xaa Xaa Xaa Arg Arg Tyr
1 5 10 15

Gly His Ala Leu Arg
20

<210> 28

<211> 21
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Pepducin
 Peptide Sequence

 <220>
 <221> VARIANT
 <222> (1)..(21)
 <223> Wherein Xaa is a space/gap induced by peptide
 alignment analysis

 <400> 28
 Arg Cys Leu Ser Ser Ser Ala Val Ala Asn Arg Ser Xaa Xaa Lys Lys
 1 5 10 15

 Ser Arg Ala Leu Phe
 20

 <210> 29
 <211> 14
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Pepducin
 Peptide Sequence

 <220>
 <221> VARIANT
 <222> (1)..(14)
 <223> Wherein Xaa is a space/gap induced by peptide
 alignment analysis

 <400> 29
 Val Ala Asn Arg Ser Xaa Xaa Lys Lys Ser Arg Ala Leu Phe
 1 5 10

 <210> 30
 <211> 21
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Pepducin
 Peptide Sequence

 <220>
 <221> VARIANT
 <222> (1)..(21)
 <223> Wherein Xaa is a space/gap induced by peptide
 alignment analysis

 <400> 30
 Arg Cys Leu Ser Ser Ser Ala Val Ala Asn Gln Ser Xaa Xaa Gln Gln
 1 5 10 15

Ser Gln Ala Leu Phe
20

<210> 31
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Pepducin
Peptide Sequence

<220>
<221> VARIANT
<222> (1)..(21)
<223> Wherein Xaa is a space/gap induced by peptide
alignment analysis

<400> 31
Arg Cys Glu Ser Ser Ser Ala Glu Ala Asn Arg Ser Xaa Xaa Lys Lys
1 5 10 15

Glu Arg Glu Leu Phe
20

<210> 32
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Extracellular
PAR1 Ligand Peptide Sequence

<400> 32
Ser Phe Leu Leu Arg Asn
1 5

<210> 33
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: i3 peptide or
mastoparan peptide sequence

<400> 33
Ile Asn Leu Lys Ala Leu Ala Ala Leu Ala Lys Lys Ile Leu
1 5 10

<210> 34
<211> 11
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Extracellular
Agonist Peptide Sequence

<400> 34

Arg Pro Lys Pro Gln Gln Phe Phe Gly Leu Met
1 5 10

<210> 35

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PAR4 Ligand
Peptide Sequence

<400> 35

Ala Tyr Pro Gly Lys Phe
1 5

<210> 36

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Receptor
Peptide Sequence

<400> 36

Pro Ala Phe Ile Ser Glu Asp Ala Ser Gly Tyr Leu Cys
1 5 10

<210> 37

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: MC4pal-14
Pepducin Peptide Sequence

<400> 37

Thr Gly Ala Ile Arg Gln Gly Ala Asn Met Lys Gly Ala Ile
1 5 10